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PATENT**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A hydrogen generator comprising:

a integral, sintered, monolithic ceramic carrier defining a fuel processor, the fuel processor including a vaporization zone and a reaction zone including a reforming catalyst;

at least one channel formed in the integral, sintered, monolithic ceramic carrier for transporting a liquid fuel to the vaporization zone;

at least one channel for transporting a vapor in the reaction zone;

an inlet channel for introducing the liquid fuel into the fuel processor; and

an outlet channel for transporting hydrogen enriched gas out of the fuel processor.

2. (Cancelled).

3. (Previously Presented) A hydrogen generator as claimed in claim 1 further including an integrated heat source thermally coupled to the reaction zone and vaporization zone using thermally conductive channels or thermally conductive vias.

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4. (Previously Presented) A hydrogen generator as claimed in claim 3 wherein the integrated heat source is a resistive heater that is electrically driven.

5. (Previously Presented) A hydrogen generator as claimed in claim 3 wherein the integrated heat source is a chemical heater including a catalyst and arranged to oxidize fuel to produce heat.

6. (Original) A hydrogen generator as claimed in claim 5 wherein the chemical heater further includes an air inlet for providing oxygen for the oxidation of the fuel and the inlet channel includes an opening to provide fuel to the chemical heater.

7. (Previously Presented) A hydrogen generator as claimed in claim 3 wherein the integrated heat source couples heat to the reaction zone using thermally conductive channels.

8. (Currently Amended) A hydrogen generator as claimed in claim 2 1 wherein one of the vaporization zone and the reaction zone include a plurality of parallel channels.

9. (Currently Amended) A hydrogen generator as claimed in claim 2 1 wherein one of the vaporization zone and the reaction zone include ~~a~~ at least one serpentine channel.

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10. (Previously Presented) A hydrogen generator as claimed in claim 1 wherein the integral, sintered, monolithic ceramic carrier is a monolithic three-dimensional multilayer ceramic structure.

11. (Previously Presented) A hydrogen generator comprising:

a three-dimensional integral, sintered, monolithic multilayer ceramic carrier structure defining a fuel processor including a vaporization zone and a reaction zone including a reforming catalyst, at least one of the vaporization zone and the reaction zone including one of a plurality of parallel channels or at least one serpentine channel formed in the integral, sintered, monolithic multilayer ceramic carrier structure for transporting a liquid fuel to the vaporization zone and for transporting a vapor in the reaction zone, the integral, sintered, monolithic ceramic carrier structure further including an integrated heater thermally coupled to the reaction zone and the vaporization zone using thermally conductive channels or thermally conductive vias;

an inlet channel for introducing liquid fuel into the fuel processor; and

an outlet channel for transporting hydrogen enriched gas out of the fuel processor.

12. (Cancelled).

13. (Currently Amended) A hydrogen generator as claimed in claim 12 11 wherein the integrated heater is one of a resistive heater that is electrically driven or a chemical heater including a catalyst and arranged to oxidize fuel to produce heat.

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14. (Previously Presented) A hydrogen generator as claimed in claim 13 wherein the integrated heater is a chemical heater and further includes an air port for providing oxygen for the oxidation of the fuel and the inlet channel includes an opening to provide fuel to the chemical heater.

15. (Previously Presented) A hydrogen generator as claimed in claim 11 wherein the integrated heater couples heat to the reaction zone using thermally conductive channels.

16. (Previously Presented) A hydrogen generator as claimed in claim 11 wherein one of the vaporization zone and the reaction zone include a plurality of parallel channels.

17. (Original) A hydrogen generator as claimed in claim 11 wherein one of the vaporization zone and the reaction zone include at least one serpentine channel.

18. (Previously Presented) A hydrogen generator comprising:

a three-dimensional, integral, sintered, monolithic multilayer ceramic carrier structure defining a fuel processor including a vaporization zone and a reaction zone including a reforming catalyst, at least one of the vaporization zone and the reaction zone including one of a plurality of parallel channels or at least one serpentine channel, the three-dimensional, integral, sintered, monolithic ceramic carrier structure further including an integrated heater thermally coupled to the reaction zone and the vaporization zone using thermally conductive structures;

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an inlet channel for introducing liquid fuel into the fuel processor; and
an outlet channel for transporting hydrogen enriched gas out of the fuel processor.

19. (Cancelled).

20. (Original) A hydrogen generator as claimed in claim 18 wherein the integrated heater is one of a resistive heater that is electrically driven or a chemical heater including a catalyst and arranged to oxidize fuel to produce heat.

21. (Previously Presented) A hydrogen generator as claimed in claim 20 wherein the integrated heater is a chemical heater and further includes an air port for providing oxygen for the oxidation of the fuel and the inlet channel includes an opening to provide fuel to the chemical heater.

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Reconsideration is respectfully requested. In view of the foregoing amendments and remarks it is believed that the application is now in condition for allowance. Notice to that effect is respectfully requested. Authorization is hereby given to charge any fees necessitated by actions taken herein, including any extension of time fees, to Deposit Account 502117.

Respectfully submitted,



SEND CORRESPONDENCE TO:

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